March 11, 2003
1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Endangered Species Coordinator
Native Species Coordinator, Fisheries
Missoula Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Bitterroot Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Bitterroot Chapter Trout Unlimited
Bitterroot Water Forum
Bitter Root RC&D Area, Inc., 1709 N First, Hamilton, MT 59840
David and Ginny Deck, 481 Sheafman Creek Road, Hamilton, MT 59840
Wayne and Marilyn Morris, 270 Golden Pond Road, Hamilton, MT 59840
Darrell Herman, 4432 Southwest 335th Street, Federal Way, WA 98023-3207
Ray Petersen, 31121 via Santo Tomas, San Juan Capistrano, CA 92675
Larry and Kathy McCormick, 1133 Meridian Road, Victor, MT 59875

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for the Future Fisheries Improvement Program. The Program tentatively plans to provide funding for a stream channel restoration project on a straightened reach of Mill Creek, a tributary to the Bitterroot River. This proposed project is located on properties owned by five separate landowners approximately 4 miles north of the town of Hamilton in Ravalli County.

Please submit any comments that you have by 5:00 P.M., April 14, 2003 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432. Please note that this draft EA will be considered as final if no substantive comments are received by the deadline listed above.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
e-mail: mlere@state.mt.us

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Mill Creek Channel Restoration Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 which directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. The Future Fisheries Improvement Program is proposing to provide funding for a project calling for the restoration of a 7,500 foot channelized reach of Mill Creek. The straightened channel would be restored to a proper dimension, pattern and profile by constructing a new channel that has access to the historic floodplain. The intent of this project is to improve salmonid spawning and rearing habitat to enhance recruitment of fish to the Bitterroot River. Additionally, the intent of the project is to restore the vegetative community within the riparian corridor and create a riparian buffer to prevent overgrazing by livestock. The project site is located approximately four miles north of the town of Hamilton in Ravalli County (Attachment 1). Five separate landowners share property boundaries within the project site.

I. Location of Project: This project will be conducted on Mill Creek, a tributary to the Bitterroot River, located approximately four miles north of the town of Hamilton within Township 7 North, Range 21 West, Section 25 in Ravalli County. Landowners on whose property the project will be undertaken include David and Ginny Deck, Wayne and Marilyn Morris, Darrell Herman, Ray Petersen and Larry and Kathy McCormick.

II. Need for the Project: One goal within Montana Fish, Wildlife and Parks six-year plan of operation for the fisheries program is to "restore and enhance degraded habitat" by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on public and private lands. This proposed project would help achieve this goal.

A one-mile reach of Mill Creek was straightened in the past for agricultural purposes, creating a simplified channel with poor fish habitat. Additionally, past grazing practices and possible brush removal resulted in a significant loss of riparian vegetation for cover, shading and bank stability. The current channel is entrenched in most reaches and instream habitat is greatly simplified. The placement of berms and the entrenchment of the straightened channel have substantially limited overbank flow onto the floodplain. Currently, this simplified channel provides very limited spawning and recruitment habitat for both resident and migrant species of fish. Woody vegetation within the riparian corridor also is very limited.

III. Scope of the Project:

The project proposes to restore a 7,500 foot channelized reach of Mill Creek (Attachment 2). The proposal calls for converting the upper 4,300 feet of straightened channel from an incised "F" type channel to a "C" stream type (Rosgen classification). The remaining 1,800 feet of straightened channel will be converted from a "C" type channel with "F" inclusions to an "E4"

stream type (Rosgen classification). The newly constructed channel would receive significant re-vegetation, bank stabilization and grade control to maintain the channel's dimensions, pattern and profile and create habitat complexity. Construction will require heavy excavation to create an appropriate channel dimension and profile throughout the restored reach of stream. The newly constructed channel is designed to provide access to a substantial floodplain. The project also calls for fencing the entire corridor to exclude livestock and protect the riparian vegetation. This project is expected to cost $500,000.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $93,738.00 to complete the project. The Natural Resources and Conservation Service and a stream restoration consultant will be sharing oversight of the project.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Returning the existing straightened channel to a proper dimension, pattern and profile is expected to create healthier habitat for aquatic life by lengthening the channel and by creating much greater environmental complexity. Expected improvements in the aquatic habitat should enhance salmonid recruitment to the Bitterroot River, as well as resident populations in the stream. Habitat for riparian dependent wildlife also would be improved by enhancing the riparian vegetative community through significant re-vegetation efforts along the stream margin and by protecting the corridor with fencing to exclude livestock.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the stream channel will be minimized to the extent practicable. Construction of the restored stream reach would be completed in segments before water is turned in from the existing active channel. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 310 permit will be obtained from the local Conservation District. In the long term, restoring the existing channel would reduce the sediment and nutrient contributions to downstream areas, thereby improving the overall quality of downstream waters.

3. Geology and soil quality, stability and moisture.

Soils along the stream margin would be disturbed during construction of the new channel, but would be stabilized with substantial re-vegetation efforts. Overall, the project is expected to reduce bank erosion and improve channel stability by returning the stream to a natural meander pattern and by providing access to the floodplain.

4. Vegetation cover, quantity and quality.

Riparian vegetation, primarily non-native grasses, would be disturbed during the period of construction. However, proposed re-vegetation efforts, in conjunction with implementing a livestock grazing exclosure, would result in a significant overall improvement to the riparian vegetation.

5. Aesthetics.

During the period of construction, estimated to be about 100 days in length, aesthetics would be adversely impacted due to on-site construction activities. In the long term, aesthetics would be enhanced by restoring a straightened reach of Mill Creek to a healthier and more natural stream environment. Additionally, the riparian vegetative community, currently nearly devoid of woody shrubs, would be enhanced by substantial re-vegetation efforts along the margins of the channel and by fencing the riparian corridor to exclude livestock.

7. Unique, endangered, fragile, or limited environmental resources.

The Bitterroot River drainage supports both westslope cutthroat trout and bull trout. Westslope cutthroat trout is a species of special concern in Montana and bull trout is listed as threatened under the Endangered Species Act. Improvements to Mill Creek may provide some benefits to both of these species. Because lower Mill Creek may support bull trout, this project will be included in Montana Fish, Wildlife and Parks Section 6 conservation plan with the U.S. Fish and Wildlife Service.

9. Historic and archaeological sites

The proposed project likely will require an individual Army Corp of Engineers 404 permit. Therefore, the State Historic Preservation Office has been contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

4. Agricultural or industrial production

Fencing the riparian corridor to protect the vegetative community is expected to remove approximately 12 acres from livestock grazing.

7. Access to & quality of recreational activities.

The Bitterroot River is one of the most heavily fished bodies of water in the state. The intent of the project is to improve recruitment of salmonids to the Bitterroot River and to Mill Creek. As a result, the recreational fishery on the river is expected to improve. The

project does not intend to provide for a recreational fishery on Mill Creek proper since the landowners currently do not allow public access to the stream.

13. Locally adopted environmental plans & goals.

The contribution of funding through the Future Fisheries Improvement Program is providing match to the Natural Resources and Conservation Service's Environmental Quality Incentives Program for completion of this restoration project.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this reach of Mill Creek will remain straightened and entrenched, resulting in continued bank erosion, simplified aquatic habitat and a sparse riparian vegetative community. This reach of altered stream will continue to provide only minimal recruitment of salmonids to the Bitterroot River. Additionally, habitat for riparian dependent wildlife will remain in a degraded condition. Recreational opportunities associated with fish and wildlife resources will remain reduced and aesthetics will continue to be impaired.

2. Conduct habitat restoration within the existing channelized stream reach

This alternative would not resolve the entrenched nature of the existing channel nor would the alternative create additional stream length. Restoration efforts commonly fail when attempted in an entrenched channel due to the inability of the stream to access its floodplain. Confined flows in an entrenched channel commonly create excessive shear stresses that wash out installed habitat structures. Overall, entrenched channels tend to be unstable.

3. The Proposed Alternative

The proposed alternative is designed to restore a straightened reach of Mill Creek into a 7,500-foot reach that would provide for more diverse aquatic habitat and a more functional channel and floodplain. This alternative would lengthen the existing channel and would greatly improve the diversity of aquatic habitat in the stream. The intent of the project is to improve spawning and rearing habitat for resident and migratory fish and to improve the vegetation within the riparian corridor. This alternative would improve fish and wildlife habitat, aesthetics and water quality within the project area and would be expected to increase trout populations both in the creek and in the Bitterroot River.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive

impact on the physical and human environment.

2. Level of public involvement.

   The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA will be published on Montana Fish, Wildlife and Park's web page.

3. Duration of comment period?

   Public comment will be accepted through 5:00 PM on April 14, 2003.

4. Person responsible for preparing the EA.

   Mark Lere, Program Officer
   Habitat Protection Bureau
   Fisheries Division
   Montana Department of Fish, Wildlife and Parks
   1420 East 6th Avenue
   Helena, MT 59620
   Telephone: (406) 444-2432
   e-mail: mlere@state.mt.us

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title Mill Creek Channel Restoration Project

Division/Bureau Fisheries Division -Future Fisheries Improvement

Description of Project The Future Fisheries Improvement Program is proposing to provide funding for a project calling for the restoration of a straightened reach of lower Mill Creek. The straightened channel would be restored to a proper channel dimension, pattern and profile by constructing a new channel that has access to the historic floodplain. The intent is to restore channel function and improve salmonid spawning and rearing habitat to enhance recruitment to the Bitterroot River. Mill Creek is a tributary to the Bitterroot River. The project site is located on properties owned by five separate landowners approximately 4 miles north of the town of Hamilton in Ravalli County.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources			X			X
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production			X			X
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		X
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction Bitterroot Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

Individuals or groups contributing to this EA Chris Clancy, Montana

Fish, Wildlife and Parks; Bitterroot Water Forum; Water Consulting, Inc.
Recommendation concerning preparation of EIS No EIS required.
EA prepared by: Mark Lere
Date: February 7, 2003